

## Claims

### What is claimed:

1. A network management station, comprising:  
a processor;  
a memory coupled to the processor; and  
program instructions provided to the memory and executable by the processor to:  
transmit an SNMP message to a device connected to the management station over a network;  
open a socket connection on the device in response to an SNMP error message returned from the device; and  
initiate a time-out function upon opening the socket connection.
2. The station of claim 1, wherein the program instructions include a platform independent function call to execute instructions which open the socket connection.
3. The station of claim 2, wherein the platform independent function call is a Java based function call.
4. The station of claim 1, wherein the SNMP error message includes a generic error message.
5. The station of claim 1, further including program instructions which can execute to selectably establish a time period in connection with the time-out function based on input from a network administrator.
6. The station of claim 1, further including program instructions which execute to indicate a status of the device based on successful SNMP messages and the time-out function.

7. The station of claim 1, wherein the program instructions execute to indicate a device is down when both the SNMP error message and a time-out failure message are received.
8. The station of claim 1, wherein the device and the station are connected over a local area network (LAN).
9. The station of claim 1, wherein the device and the station are connected over a wide area network (WAN).
10. A network management station, comprising:
  - a processor;
  - a memory coupled to the processor; and
  - program instructions provided to the memory and executable by the processor to:
    - send an SNMP request to a device connected to the management station over a network;
    - register a return error message to the SNMP request from device;
    - execute a Java based function call to open a socket connection on the device in response to the return error message;
    - initiate a time-out function upon opening the socket connection;and
  - indicate a device status based on successful SNMP requests and the time-out function.
11. The station of claim 11, wherein the program instructions execute to indicate the device status is up upon receiving successful SNMP requests.
12. The station of claim 12, wherein the program instructions execute to indicate the device status is up when:
  - a return error message to the SNMP request is registered by the program instructions; and

a response is received by the program instructions prior to an expiration of the time-out function.

13. The station of claim 13, further including program instructions to selectably establish a time-out period in association with the time-out function.

14. The station of claim 12, wherein the program instructions execute to indicate the device status is down when:

a return error message to the SNMP request is registered by the program instructions; and

a time-out failure message associated with the time-out function is received by the program instructions.

15. A method for device status identification, comprising:

transmitting an SNMP message to a device;

opening a socket connection on the device in response to an SNMP error message returned from the device; and

initiating a time-out function upon opening the socket connection.

16. The method of claim 15, further including using a platform independent function call to open the socket connection on the device.

17. The method of claim 16, further including using a Java based function call to open the socket connection on the device.

18. The method of claim 15, further including establishing a time out period in association with the time-out function.

19. The method of claim 18, further including indicating the device is down upon:

registering the SNMP error message; and

receiving a time-out failure message associated with the time-out function.

20. The method of claim 19, further including visually indicating the device is down using a colored icon.

21. The method of claim 15, further including indicating the device is up upon receiving successful SNMP requests.

22. The method of claim 15, further including indicating the device is up upon:  
registering the return error message to the SNMP request; and  
receiving a response prior to an expiration of the time-out function upon opening the socket connection.

23. A method for device status identification, comprising:  
sending an SNMP request to a device;  
registering a return error message from the device in response to the SNMP request;  
executing a Java based function call to open a socket connection on the device in response to the return error message;  
initiating a time-out function upon opening the socket connection; and  
indicating a device status based on successful SNMP requests and the time-out function.

24. The method of claim 23, further including indicating a device is up if a message is returned from the socket connection of the device prior to an expiration of the time-out function.

25. The method of claim 23, further including indicating a device is down if no message is returned from the socket connection of the device prior to an expiration of the time-out function.

26. A computer readable medium having instructions for causing a device to perform a method, comprising:

transmitting an SNMP message to a device on a network;  
opening a socket connection on the device in response to an SNMP error message returned from the device; and  
initiating a time-out function upon opening the socket connection.

27. The medium of claim 26, further including indicating a device status based on successful SNMP requests and the time-out function.

28. A network management station, comprising:  
a processor;  
a memory coupled to the processor; and  
means for determining a status of a device connected to the management station over a network in a platform independent manner.

29. The station of claim 28, wherein the means includes program instruction which execute to send a simple network management protocol (SNMP) request to the device.

30. The station of claim 29, wherein the means includes program instruction which execute to register successful SNMP requests as an up status for the device.

31. The station of claim 29, wherein the means includes program instructions which execute to register an up status for the device when:

a return error message to an SNMP request is received by the program instructions; and

a response message associated with opening a socket connection on the device is received by the program instructions prior to an expiration of a time-out function.

32. The station of claim 29, wherein the means includes program instructions which execute to register a down status for the device when:

a return error message to an SNMP request is received by the program instructions; and

a time-out failure message associated with a time-out function is received by the program instructions.

33. The station of claim 29, wherein the means includes program instructions having a platform independent function call to execute instructions which open a socket connection on the device.

34. The station of claim 33, wherein the platform independent function call is a Java based function.